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ABSTRACT

A method for communicating information is disclosed wherein a time slot is allocated in a time division multiple access system for a transmission from a subscriber to a headend. Synchronization of a clock of the subscriber with respect to a clock of the headend is enhanced using a message transmitted from the headend to the subscriber which is indicative of an error in a subscriber transmission time with respect to the time slot. A feedback loop process is used to determine at least one of fractional symbol timing correction and carrier phase correction of a transmission from the subscriber to the headend. Filter coefficients are generated at the headend from a ranging signal transmitted from the subscriber to the headend and transmitting the filter coefficients from the headend to the subscriber, the filter coefficients being used by the subscriber to compensate for noise in a transmission from the subscriber to the headend.

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